



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,851	12/26/2001	Jeong Il Bang	HI-0066	7554
34610	7590	01/24/2006	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			CHU, GABRIEL L	
			ART UNIT	PAPER NUMBER
			2114	
DATE MAILED: 01/24/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Specification

1. The amendment filed 19 November 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: Referring to Applicant labeled paragraph 26, "(e.g., read only),".

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Objections

2. Claims 3, 15 objected to because of the following informalities:

Referring to claim 3, this claim presently depends from cancelled claim 2. Claim 3 is understood to depend from claim 1.

Referring to claim 15, "A apparatus" is understood to refer to "An apparatus", as previously objected.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claim 21 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.** The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably

convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Referring to claim 21, Examiner has found no support for a control signal terminating a corresponding application program. While paragraphs 36 and 38 of the pre-grant publication account for control of the application, it does not disclose "termination" as a type of control.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3-7 rejected under 35 U.S.C. 102(e) as being anticipated by US 6728907 to Wang et al. Referring to claim 1, Wang discloses a method for debugging application programs, the method comprising: allocating prescribed regions of a system memory for each of a plurality of application programs (Figure 7, allocation table.);

writing application identifier information on an application to be performed (From line 55 of column 8, "The outstanding allocations table 511.sub.1 tracks specific information about each pool allocation that the driver has been given that remains outstanding, i.e., has not yet deallocated. The information may include the allocation's virtual address, length, and information useful in debugging such as per-process caller

information and the tag of the driver that allocated the memory, e.g., "TCP" for TCP/IP drivers.");

checking whether the application program is performed in a designated region (From line 1 of column 13, "The remainder of the page that precedes the data, if any, is written with random data, which may comprise a recorded pattern or the like to detect underruns. To detect overruns, the previous page and the next page in the special page pool 1109 are marked inaccessible.");

and generating an interrupt signal when the application program is performed in a region other than the designated region for the application program (From line 13 of column 13 (with emphasis), "Attempts to access memory beyond the allocation buffer (within a page) are immediately detected as an access violation, as such an access is within the subsequent, "No Access" memory page. Note that writing before the beginning of the buffer will (presumably) alter the random data, and when the buffer is freed, this alteration will be detected. In either case, a bug check is issued, whereby the offending driver is identified in keeping with the present invention. Note that underrun detection may be selected for drivers, such that the allocated memory is instead aligned with the beginning of the page. With this setting, underruns cause an **immediate** bug check, while overruns (may) cause a bug check when the memory is freed.").

7. Referring to claim 3, Wang discloses latching a data signal corresponding to the written application identifier information on the application program (From line 55 of column 8, "The outstanding allocations table 511.sub.1 tracks specific information about each pool allocation that the driver has been given that remains outstanding, i.e., has

not yet deallocated. The information may include the allocation's virtual address, length, and information useful in debugging such as per-process caller information and the tag of the driver that allocated the memory, e.g., "TCP" for TCP/IP drivers.");

and outputting an application signal corresponding to the application identifier that is identified based on the latched data signal (From line 10 of column 9, "When the system crashes again, the process illustrated in FIG. 6B moves to block 635. At block 635, the diagnostic mechanisms employed by the memory manager 201 contain an identification of each driver or software module that has outstanding memory operations of the type identified by the stop code 311. For example, if the stop code 311 indicates that the previous system crash occurred as a result of low memory, the allocation table 511 may indicate the drivers that had allocations and details about those allocations at the time of the crash. Thus, the memory manager 201 reports the results of the diagnostic procedure to the user or system administrator in the form of a printout or summary of the allocation tables, or any other form of report.").

8. Referring to claim 4, Wang discloses the designated region is an operation region assigned to each application program (Figure 7, allocation table.).

9. Referring to claim 5, Wang discloses determining the information on the application responsive to the interrupt signal; and performing an operation corresponding to the information on the application based on the determination (From line 10 of column 9, "When the system crashes again, the process illustrated in FIG. 6B moves to block 635. At block 635, the diagnostic mechanisms employed by the memory manager 201 contain an identification of each driver or software module that

has outstanding memory operations of the type identified by the stop code 311. For example, if the stop code 311 indicates that the previous system crash occurred as a result of low memory, the allocation table 511 may indicate the drivers that had allocations and details about those allocations at the time of the crash. Thus, the memory manager 201 reports the results of the diagnostic procedure to the user or system administrator in the form of a printout or summary of the allocation tables, or any other form of report.”).

10. Referring to claim 6, Wang discloses sending a control signal that is generated based on the interrupt signal to the system memory (From figure 6b, “Report results of diagnostic procedure” operates as a result of a system crash 633, wherein from line 10 of column 9, “When the system crashes again, the process illustrated in FIG. 6B moves to block 635. At block 635, the diagnostic mechanisms employed by the memory manager 201 contain an identification of each driver or software module that has outstanding memory operations of the type identified by the stop code 311. For example, if the stop code 311 indicates that the previous system crash occurred as a result of low memory, the allocation table 511 may indicate the drivers that had allocations and details about those allocations at the time of the crash.”, wherein at least the allocation table 511 is disclosed as a function of the memory manager, which is disclosed as part of system memory, from line 24 of column 5, “The several components of the system 200 are illustrated as separate from the system memory 22 for clarity of explanation, but those skilled in the art will appreciate that those components may reside within the system memory 22 during execution.”)

Art Unit: 2114

11. Referring to claim 7, Wang discloses after an application program switching occurs to a next application (From figure 6a to 6b, the system crashes and starts up a new instance, monitoring new drivers.), a checking process based on information corresponding to the next application is repeatedly conducted to check whether the next application is performed in a corresponding designated region (From at least figure 6b, 633 loops back into 631 which loops into 633. Also, from line 13 of column 13, Wang discloses “attempts” (plural) to access.).

Allowable Subject Matter

12. **Claims 8, 9, 22 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.** Referring to claim 8, 9, 22, the prior art does not teach or fairly suggest, in light of the parent claim(s), the checking whether the application program is performed in a designated region further comprises: checking an operation region of a current application program being accessed and outputting a result; generating an address signal corresponding to the checking result; and outputting a grant signal based on the address signal.

13. **Claims 15, 17-20 objected to as having objectionable subject matter, but would be allowable if rewritten to overcome the objectionable matter.** Referring to claim 15, the prior art does not teach or fairly suggest, in view of USC 112 6th paragraph, checking means for outputting an application signal corresponding to the application identifier that is identified based on the data signal, and for generating an

Art Unit: 2114

interrupt signal according to a determination whether a current application program is performed in a designated region, in the scope and context of claim 15.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See notice of references cited.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabriel L. Chu whose telephone number is (571) 272-3656. The examiner can normally be reached on weekdays between 8:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gc



SCOTT BADERMAN
SUPERVISORY PATENT EXAMINER